HMI - BHP

User manual

```
2020-02-20  08:52        ❄        ▥▯ 0.0°C   🌡 0.0°C

            ⊖      ( 25°C )      ⊕

        🏠      ❄❄       🌡       ⏻
```

WIRED CONTROLLER

AERMEC

Dear Customer,

Thank you for wanting to learn about a product Aermec. This product is the result of many years of experience and in-depth engineering research, and it is built using top quality materials and advanced technologies.

The manual you are about to read is meant to present the product and help you select the unit that best meets the needs of your system.

However, please note that for a more accurate selection, you can also use the Magellano selection program, available on our website.

Aermec, always attentive to the continuous changes in the market and its regulations, reserves the right to make all the changes deemed necessary for improving the product, including technical data.

Thank you again.

Aermec S.p.A.

CERTIFICATIONS

COMPANY CERTIFICATIONS

SAFETY CERTIFICATIONS

This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled disposal of Waste Electrical and Electronic Equipment (WEEE), please return the device using appropriate collection systems, or contact the retailer where the product was purchased. Please contact your local authority for further details. Illegal dumping of the product by the user entails the application of administrative sanctions provided by law.

In accordance with Italian Legislative Decree 116 / 2020, the machine's packaging is marked; for unmarked packaging parts, the composition is as follows: **Expanded polystyrene - PS 6**

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec shall not be held liable for any errors or omissions.

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1 WARNING AND HAZARD TERMS

Before proceeding with any assessment or operation on the unit, carefully read this manual and all of its notes marked with the following symbols, which indicate the various levels of hazard or situations that are potentially hazardous to prevent malfunctioning or physical damage to property or personal injury:

WARNING
Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION
Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

MANDATORY
This indicates a mandatory action that, if not carried out, could cause death or serious injuries.

PROHIBITION
Indicates a prohibited action which, if not avoided, could result in death or serious injury.

NOTICE
IMPORTANT additional information on how to use the product

2 USER NOTICE

PROHIBITION
Never install the wired controller in the moist circumstance or expose it directly under the sunlight.
Never beat, throw, and frequently disassemble the wired controller and the wireless remote controller.
Never operate the wired controller and the wireless remote controller with wet hands.
Do not remove or install the wired controller by yourself. If there is any question, please contact our after-sales service center.

MANDATORY
If the units are installed in a location exposed to electromagnetic interference, shielded twisted pair cables must be used for the communication connections between the units.
Ensure to be able to use the correct communication ports, otherwise the connection may not work properly.

NOTICE
Please read the manual carefully before using and installing this product.

3   USER INTERFACE

3.1   MAIN PAGE (HOME)

After startup, the main page (Home) appears on the display.
From this page it will be possible to:
— select one of the menus available to the user;
— turn on / off the unit;
— display information regarding the operating mode, any active errors, in addition to the system date and time;
— set the work set and operating mode for the unit.

NOTICE
ℹ️   **After 10 minutes of inactivity, the system will automatically return to the main page.**

Depending on status and active mode, one or more icons may be displayed at the top of the screen:

Icon	Meaning
☼	HEATING mode active
❄	COOLING mode active
💧	Domestic hot water mode active
🌡	Indicates the measured external temperature
🌡	Based on the type of regulation specified on the "Control temp." Page (Paragraph 9.4 Setting the control logic (Ctrl.state) *on page 29*): • Room temperature; • System delivery temperature;
⚠️	This icon indicates that an alarm is currently in progress
ℹ️	This icon may indicate that: • External contact; • Anti-legionella cycle failed;
🔒	This icon indicates that the panel is locked

while several keys are available at the bottom of the display:

Button	Function
🏠	Key to return to the menu selection window
❄☼	Key to change the operating mode between heating and cooling
💧	Key to enable domestic hot water production (which will add to the operating mode already set)

Button	Function
⏻	Button to turn the unit on or off; the color of the button will indicate the status of the unit: • Green: unit on; • White: unit off;

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2	ΔT-room temp	
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	ΔT-hot water	

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5 BASIC FUNCTIONS

5.1 SWITCHING THE UNIT ON AND OFF (ON/OFF)

To switch the unit on or off, press the flag shown in the figure; once this is done, the system will ask for confirmation of the switching on or off through another window where the on/off command can be confirmed or cancelled.

NOTICE

ℹ️ **Once the voltage supply has been connected for the first start-up, this function will be set on "Off";**

ℹ️ **If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory)** _on page 38_**"), the value of this parameter will be stored in the memory and automatically reset after any possible voltage failure.**

5.2 SELECTING A MENU

To enter one of the menus available to the user; click on the corresponding icon; on entering them, each menu (depending on the one selected) will allow you to browse the various pages or enter other sub-menus linked to specific functions.
Press the HOME icon to return to the main page.

6 FUNCTION MENU

6.1 NAVIGATING THE MENU

↩ ③ Function (1/4) ④ 🏠
Mode: Cool
Fast hot water: Off
Cool + hot water: Hot water
Heat + hot water: Hot water
Quiet mode: Off

① ② « »

This menu is used to set operating functions for the unit. The following keys are used to navigate this menu:
1. Move back to the previous page;
2. Move on to the next page;
3. Go back to the higher level menu;
4. Go back to the main page;
To access a function, click on the text of that function.

> **NOTICE**
>
> ℹ While navigating the menu pages, the current page of the selected menu will be displayed in the header (i.e. in the darker upper area);
>
> ℹ Any functions not available will be highlighted by the letters "NA".

6.2 SETTING THE OPERATING MODE (MODE)

Mode
○ Heat   ○ Heat + Hot water
○ Hot water   ● Cool
○ Cool + hot water
OK   Cancel

After accessing the "Mode" function, you can choose one of the modes available by clicking directly on the text that identifies it and then confirming with the "OK" key.

> **NOTICE**
>
> ℹ Before changing the operating mode, the unit must be OFF, otherwise a message will

warn you to turn the unit off before changing the mode;

ℹ If the compatible Aermec accessory tank for this model (refer to the installation manual for more information) is not installed and correctly set, the only modes available will be HEATING and COOLING;

ℹ If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) *on page 38*"), the value of this parameter will be stored in the memory and automatically reset after any possible voltage failure;

ℹ The default value for this parameter is: "Heat".

6.3 ACTIVATING THE FUNCTION FOR FAST DOMESTIC HOT WATER PRODUCTION (FAST HOT WATER)
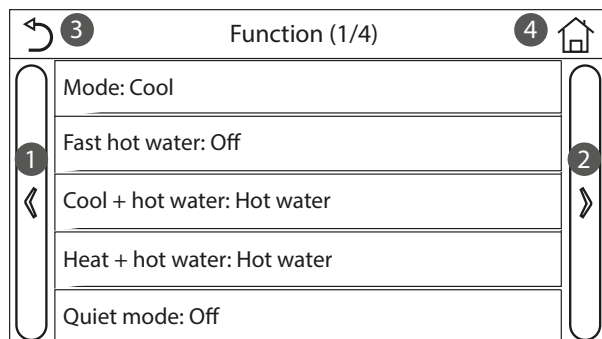
Fast hot water
● Off
○ On
OK   Cancel

After accessing the "Fast hot water" function, you can choose whether to activate - along with the unit compressor - the electric heater inserted in the compatible Aermec accessory tank (specific for this model) for the production of domestic hot water. To activate this function, click directly on "ON" and then confirm with "OK".

> **NOTICE**
>
> ℹ If the compatible Aermec accessory tank for this model (refer to the installation manual for more information) is not installed and correctly set, this function will not be available;
>
> ℹ To ensure even better energy saving, it is advisable to disable this function;

ℹ️ If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) *on page 38*"), the value of this parameter will be stored in the memory and automatically reset after any possible voltage failure;

ℹ️ The default value for this parameter is: "Off".

6.4 SETTING THE PRIORITY BETWEEN COOLING AND DOMESTIC HOT WATER PRODUCTION (COOL+HOT WATER)

```
                Cool + hot water

              ○  Cool

              ◉  Hot water

        ┌──────────────┬──────────────┐
        │      OK       │    Cancel     │
        └──────────────┴──────────────┘
```

After accessing the "Cool+hot water" function, you can select "Cool" to force the unit to first of all satisfy the system terminal side; by selecting "Hot water", priority is given to domestic hot water production. Select the priority, then press "OK" to confirm.

NOTICE

ℹ️ If the compatible Aermec accessory tank for this model (refer to the installation manual for more information) is not installed and correctly set, this function will not be available;
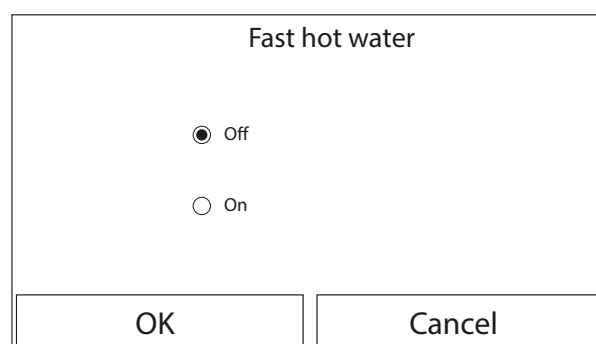
ℹ️ If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) *on page 38*"), the value of this parameter will be stored in the memory and automatically reset after any possible voltage failure;

ℹ️ The default value for this parameter is: "Cool".

6.5 SET THE PRIORITY BETWEEN HEATING AND DOMESTIC HOT WATER PRODUCTION (HEAT+HOT WATER)

```
                Heat + hot water

              ○  Heat

              ◉  Hot water

        ┌──────────────┬──────────────┐
        │      OK       │    Cancel     │
        └──────────────┴──────────────┘
```

After accessing the "Heat+hot water" function, you can select "Heat" to force the unit to first of all satisfy the system terminal side; by selecting "Hot water", priority is given to domestic hot water production. Select the priority, then press "OK" to confirm.

NOTICE

ℹ️ If the compatible Aermec accessory tank for this model (refer to the installation manual for more information) is not installed and correctly set, this function will not be available;

ℹ️ If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) *on page 38*"), the value of this parameter will be stored in the memory and automatically reset after any possible voltage failure;

ℹ️ The default value for this parameter is: "Heat".

6.6 SETTING THE NOISE REDUCTION FUNCTION (QUIET MODE)

```
  ��         Quiet mode           ▭

  Quiet mode: Timer

  Start Timer: 00:00            22   58
                                23   59
  End Timer: 00:00              00   00
                                01   01
                                02   02
```

After accessing the "Quiet mode" function by clicking on the label, you can change the value to be assigned to the function. The possible values are:
— "On" = Function active;
— "Off" = Function not active;
— "Clock timer" = Function active but in accordance with the time settings provided;

If you select "Clock timer", two keys will appear. Use them to set the start and end of the "Quiet mode" activation period. To set the values, press the time label in question and set the hours and minutes by sliding the value up or down with your fingertip (the value highlighted in blue in the middle of the selection window), as shown in the figure:

NOTICE

ⓘ **Every time you press on the label, the value will change. Once you have selected the required value, press the icon to save and implement the setting;**

ⓘ **The function can still be set if the unit is Off, but it will only be implemented if the unit is activated;**

ⓘ **When the function is set to "On", it will automatically be set to "Off" if the unit is switched off manually, whereas the setting will remain valid until the end of the selected period if the function value is set to "Clock timer";**

ⓘ **If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory)** *on page 38***"), the value of this parameter will be stored in the memory and automatically reset after any possible voltage failure;**

ⓘ **The default value for this parameter is:** "Off".

6.7 SETTING THE AUTOMATIC SETTING COMPENSATION ON THE BASIS OF EXTERNAL AIR (WEATHER DEPEND)

After accessing the "Weather depend" function, you can set all the parameters related to offsetting work set-points in accordance with variations in outside air temperature. The following keys are used to navigate this menu:
1. Move back to the previous page;
2. Move on to the next page;
3. Go back to the higher level menu;
4. Go back to the main page (Home).

To activate this function, click on the "Weather depend" label (the first item on the first page of the function). Select "On" and then confirm with "OK".

Subsequently, the values for the various parameters that make up climatic curves will be set; these parameters represent the curves that the system will use to change the set automatically on the delivery temperature or the ambient air temperature (if an air-based control has been set, using the specific accessory air probe) to both hot and cold:

To set values for each parameter to create the climatic curves, click on the label of the parameter in question and set the desired value using the "+" or "-" keys to enter a value within the permitted range. After setting the value, press "OK" to confirm and return to the higher level;

Upper AT Heat	
Range: 10~37°C	Default: 25°C
(-) 25°C (+)	
OK	Cancel

NOTICE

ℹ️ **The climatic curve can be applied to both the delivery temperature (water adjustment) and the ambient air (only if the specific air probe supplied has been installed); you are advised, however, to use the check on the delivery temperature;**

ℹ️ **The climatic curves can only be applied to heating and cooling, not to domestic hot water production;**

ℹ️ **The function remains active even when the unit has been switched off. To deactivate it, set "Weather depend:** Off manually.";

ℹ️ **In the "View" menu, you can see the target value of the climatic curve;**

ℹ️ **The function can still be set if the unit is OFF, but it will only be implemented if the unit is activated;**

ℹ️ **If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory)** _on page 38_**"), the value of this parameter will be stored in the memory and automatically reset after any possible voltage failure;**
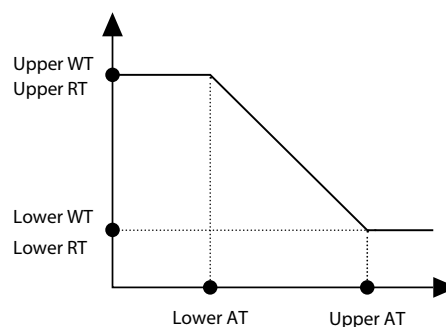
ℹ️ **The default value for this function is "Off".**

6.8 SETTING A TIMER FOR PROGRAMMED SWITCH-ON AND/OR SWITCH-OFF (WEEKLY TIMER)

↩ Weekly timer ⌂	
Weekly timer: On	
Mon: Valid	Tue: Invalid
Wed: Invalid	Thur: Invalid
Fri: Invalid	Sat: Holiday
Sun: Holiday	

After accessing the "Weekly timer" function, you can set up to three time bands for each single day of the week; during these time bands, the unit will work with the current mode and set-point. Alternatively, you can assign the "Holiday" value to one day or more; if the specific "Holiday program" function is enabled, an operating set-point of 30°C will be automatically set if you use the check on the delivery water, or 10°C if you use the ambient air check (installing the specific air probe accessory).

↩ Mon ⌂
Mon: Valid
Period 1: Invalid
Period 2: Invalid
Period 3: Invalid

Clicking on the label for one of the days of the week allows access to the page for that day, where you can assign a value to the day, including:
— "With" = if the Weekly Timer is active, the system will perform the programmed access as specified in the data for periods 1, 2 and 3;
— "Without" = the Weekly Timer is also active, this day will not be considered;
— "Holiday" = if the "Holiday release" is active, during this day the set will be kept at 30°C (for water control) or 10°C (for air control);

Period 1

Period 1: Valid

Start Timer: 00:00

End Timer: 00:00

22	58
23	59
00	00
01	01
02	02

Period 1

Period 1: Valid

Start Timer: 00:00

End Timer: 00:00

23	59
00	00
01	01
02	02

By clicking on the label for one of the periods during the selected day, you can access the period settings page. The possible period settings are:

— "With" = the period describes a time band when the unit is to be used;; in this case, the labels relating to the start and end times for the period will also be displayed (which will be set first by clicking on the time label to be set and then sliding your fingertip over the time values until you select the ones required; lastly, press the top right button to save the data entered);

— "Without" = the period will not be used;

NOTICE

ℹ **Every time you press on the label, the value will change. Once you have selected the required value, press the icon to save and implement the setting;**

ℹ **To make the time settings specified on various days of the week effective, the Weekly Timer must be set to "On" (by clicking on the Weekly Timer label itself);**

ℹ **The "With" setting for one or more days of the week validates the specified time settings only if the Weekly Timer is "On";**

ℹ **You can set up to three time bands (periods) for each day; their start and end times must be coherent (the start of one period must be later than the end of the previous one);**

ℹ **If one day or more has been set as "Holiday", you must activate the "Holiday release" function (explained in the next paragraph);**

ℹ **If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory)** *on page 38*"**), the value of this parameter will be stored in the memory and automatically reset after any possible voltage failure;**

ℹ **The default value for this function is "Off".**

6.9 ENABLING THE HOLIDAY PROGRAM FUNCTION USED FOR THE WEEKLY TIMER (HOLIDAY RELEASE)

Holiday release

○ Off

◉ On

| OK | Cancel |

After accessing the "Holiday release" function, you can enable or disable this program if applied as a daily setting on one or more days of the weekly timer. Select the setting, then press "OK" to confirm.

NOTICE

ℹ **If one day or more is set on "Holiday" in the weekly timer, this function must be "On" if you want the program specified in the timer to be respected;**

ℹ **The default value for this function is "Off".**

6.10 ENABLING/DISABLING THE ANTI-LEGIONELLA CYCLE (DISINFECTION)

After accessing the "Disinfection" function, you can enable or disable this function, as well as choose the time and day to run it and the temperature to be used:

MANDATORY

If the unit is used for domestic hot water production, the Disinfection MUST necessarily be used.

Click on the label relating to the set-point value for the anti-legionella cycle. This will draw up a numerical keypad, that you can use to alter the set-point (within the permitted ranges). Bear in mind that to ensure the effectiveness of the cycle, it will be maintained for a certain duration which will increase when the set value is decreased.

NOTICE

Every time you press on the label, the value will change. Once you have selected the required value, press the icon to save and implement the setting;

If the compatible Aermec accessory tank for this model (refer to the installation manual

for more information) is not installed and correctly set, this function will not be available;

This function can only be activated if the unit is switched off;

This function cannot be activated simultaneously with: "Emergen. mode", "Holiday mode", "Floor debug", "Manual defrost", "Refri. recovery";

If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) on page 38**"), the value of this parameter will be stored in the memory and automatically reset after any possible voltage failure;**

If the anti-legionella cycle is not completed, the unit will produce a message on the screen to indicate the anomaly. This message can be reset by pressing "OK";

An anti-legionella cycle will automatically be interrupted by any possible communication error or an error linked to the storage tank accessory;

If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) on page 38**"), the value of this parameter will be stored in the memory and automatically reset after any possible voltage failure;**

The default value for this function is "Off".

6.11 SETTING A TIMED SWITCH-ON/SWITCH-OFF (CLOCK TIMER)

After accessing the "Clock timer" function, you will be able to set all the parameters needed for a timed start of the unit:
— "Clock timer" = enable or disable the timer;

— "Mode" = select the mode to be used during the time band (each click changes the mode);

— "Period" = access this page to set the start and end time for the time band;

— "T-tank ctrl." = set (if the mode so envisages) the set for the domestic hot water production storage tank;

— "WOT-heat" = set the value (if envisaged) for the water production set-point (terminal system side);

Clock timer		
Start timer: 00:00	22	58
End timer: 00:00	23	59
	00	00
	01	01
	02	02

Click on the "Period" label to open the page with the timer start and end time labels; set by first of all clicking on the label of the time you want to set, then sliding your fingertip over the time values until you select those required. Lastly, press the top right button to save the data entered.
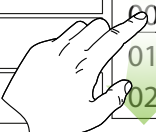
Click on the labels for parameters with numeric values to be inserted to display a numeric keypad (with an indication of the range of permitted values) which you can use to enter the required values:

Cloc	Min: 20 Max: 60	X
Clock timer: Off	0	
Mode: Heat	1 2 3	←
Period: 00:00~00:00	4 5 6	
T water tank: 50°C	7 8 9	OK
WOT Heat: 45°C	0 -	

Clock timer	
Clock timer: Off	
Mode: Heat	
Period: 00:00~00:00	
T water tank: 50°C	
WOT Heat: 45°C	

ⓘ If the requested mode is "Hot water", the "WOT-Cool" or "WOT-heat" parameter will not be displayed;

ⓘ Every time you press on the label, the value will change. Once you have selected the required value, press the icon to save and implement the setting;

ⓘ If the compatible Aermec accessory tank for this model (refer to the installation manual for more information) is not installed and correctly set, the references to hot water production will not be available;

ⓘ If the weekly timer and the standard timer are set at the same time, the weekly timer takes priority;

ⓘ The timer start must always be prior to the timer end, otherwise the period will not be valid;

ⓘ The timer for hot water production will only be available if the operating mode envisages hot water production;

ⓘ The timer function will only work once. If you want to use it again, you must re-set it;

ⓘ The timer is deactivated if the unit is manually switched on before the timer start time;

ⓘ If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) *on page 38*"), the value of this parameter will be stored in the memory and automatically reset after any possible voltage failure;

ⓘ The default value for this function is "Off".

6.12 SETTING PROGRAMMED SETTING CHANGES ON SYSTEM WATER DELIVERY (TEMP. TIMER)

After accessing the "Temp. timer" function, you can set programmed variations of the water delivery set-point (this set-point will depend on the currently active operating mode). The function can be activated or deactivated by clicking on the "Temp. timer" label; click on the "Period 1" label to specify the time at which the water delivery set-point is to be changed, setting it to the value specified in the "WOT-heat 1" parameter (which when clicked will display a numeric keypad to change its value). Set "Period 2" with related "WOT-heat 2" in the same way.

Click on the labels for the delivery temperature parameters to display a numeric keypad (with an indication of the range of permitted values) which you can use to enter the required values:

NOTICE
ⓘ Press the icon to save and implement the setting;
ⓘ This function is not available if DHW mode is set;
ⓘ To activate this function, the unit must be enabled;
ⓘ The time bands apply to the current day only;
ⓘ If "Weekly timer", "Preset mode", "Clock timer", "Temp. timer" are set at the same time, priority is given to the last one of these to be set;
ⓘ The setting is only valid if the unit is "On";
ⓘ Depending on the operating mode defined (heating or cooling), the relative set-points will be used;
ⓘ If the start time of "Period 2" is the same as that of "Period 1", the first will be implemented;
ⓘ The time bands are based on the timer inside the unit;
ⓘ During hot water production mode, this function is not available;
ⓘ If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) on page 38"), the value of this parameter will be stored in the memory and automatically reset after any possible voltage failure;
ⓘ The default value for this function is "Off".

6.13 ENABLING EMERGENCY OPERATION FOR HEATING OR DHW (EMERGEN. MODE)

```
┌─────────────────────────────────────┐
│           Emergen. mode              │
│                                      │
│        ○  Off                        │
│                                      │
│        ◉  On                         │
│                                      │
├──────────────────┬───────────────────┤
│       OK         │      Cancel       │
└──────────────────┴───────────────────┘
```

If the compatible Aermec accessory tank for this model (refer to the installation manual for more information) - and/or an additional heat source (paragraph "9.9 Setting the use of an external thermostat (Thermostat) *on page 30*") or electric heater (paragraph "9.10 Setting an additional heat source (Other thermal) *on page 31*") - is installed and correctly set on the system, you can enable the "Emergency mode" function which excludes the heat pump for hot water (domestic or system) production, using only the electric heater of the storage tank and/or the additional heat source (or electric heater) to meet the requests. After accessing the "Emergen. mode" function, you can enable or disable this program; you must then press "OK" to confirm.

NOTICE
ℹ️ **Emergency mode can only be activated when the unit is OFF, or if the compressor displays an error and, despite a reset, the error resumes and persists for at least 3 minutes;**
ℹ️ **Emergency mode can only be activated in heating (DHW or Heating, but not simultaneously);**
ℹ️ **Emergency mode cannot be activated without the installation (and activation) of the electric heater on the storage tank and/or the additional heat source or electric heater;**
ℹ️ **The use of Emergency mode (in Heating) will be blocked if the "HP-Water Switch", "Auxi. heater 1", "Auxi. heater 2", "Temp AHLW" errors appear;**
ℹ️ **The use of Emergency mode (in DHW) will be blocked if the "Auxi. WTH" error appears;**
ℹ️ **None of the functions linked to the timers will be available during Emergency mode;**

ℹ️ **The thermostat cannot be used in Emergency mode;**
ℹ️ **After a voltage failure, Emergency mode returns to the OFF status;**
ℹ️ **Certain functions are not available in Emergency mode so, if you attempt to activate them, the system will tell you to disable Emergency mode first;**
ℹ️ **The default value for this function is "Off".**

6.14 SETTING THE WINTER PERIOD ABSENCE FUNCTION (HOLIDAY MODE)

```
┌─────────────────────────────────────┐
│           Holiday mode               │
│                                      │
│        ○    Off                      │
│                                      │
│        ◉    On                       │
│                                      │
├──────────────────┬───────────────────┤
│       OK         │      Cancel       │
└──────────────────┴───────────────────┘
```

You can use the weekly timer to assign the "Holiday" program to at least one day of the week. On those days, the unit will work in heating mode, maintaining a 30°C setpoint on delivery water (or 10°C if the check is based on the ambient air). To enable the implementation of the Holiday Program (if set on the weekly timer), you must activate this function.
After accessing the "Holiday mode" function, you can choose one of the modes available by clicking directly on the text that identifies it and then confirming with the "OK" key.

NOTICE
ℹ️ **Before changing the operating mode, the unit must be OFF, otherwise a message will warn you to turn the unit off before changing the mode;**
ℹ️ **During the use of Holiday mode (as set in the weekly timer), the operating mode will be automatically set on "Heating" and the On/Off command from the panel cannot be used;**
ℹ️ **None of the functions linked to the timers will be available during Holiday mode;**

ⓘ **Certain functions are not available in Emergency mode so, if you attempt to activate them, the system will tell you to disable Emergency mode first;**

ⓘ **If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory)** on page 38**"), the value of this parameter will be stored in the memory and automatically reset after any possible voltage failure;**

ⓘ **The default value for this function is "Off".**

6.15 SETTING THE DAILY TIMER PROGRAMMING (PRESET MODE)

↩	Preset mode	⌂
Period 1: Valid		
Period 2: Invalid		
Period 3: Invalid		
Period 4: Invalid		

This function is used to set one to four daily periods, whose commands will then be executed every day. After accessing the "Preset mode" function, you can press the key for each period to activate or deactivate an individual period, choose the operating mode to be used, the temperature set-point for processed water, and the start and end times of the period itself.

↩	Preset mode	⬚
Period 1: Valid		
Mode: Heat		
WOT Heat: 45°C		
Start timer: 00:00		
End timer: 00:00		

Clicking on the "Period" label will open the page with the labels relating to period activation, the mode to be used during the period, the water delivery temperature and the start and end times. Click on each of these to set the appropriate value (each data item may draw up additional windows for selecting or entering the required values). Lastly, press the top right button to save the data entered.

NOTICE

ⓘ **If the compatible Aermec accessory tank for this model (refer to the installation manual for more information) is not installed and correctly set, the "DHW" function will not be available;**

ⓘ **If timer programming with the Weekly timer and other settings with Preset mode have been entered simultaneously, the latter will take priority;**

ⓘ **Up to four time bands can be set for each day, but their start and end times must coherent (the beginning of one period must be later than the end of the previous period);**

ⓘ **If the unit is switched on manually, the period timer programs will not be implemented;**

ⓘ **If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory)** on page 38**"), the value of this parameter will be stored in the memory and automatically reset after any possible voltage failure;**

ⓘ **The default value for this function is "Off".**

6.16 DELETING CURRENT ERRORS (ERROR RESET)

This function is used to reset any errors active on the system. This operation must only be performed after having resolved the alarm condition signalled. To reset the alarms, press on the function label and then confirm with "OK" in the dialogue box;

NOTICE

ⓘ **This function can only be performed if the unit is switched off.**

6.17 WIFI CONNECTION RESET FUNCTION (WIFI RESET)

This function is used to reset the WiFi connection, eliminating any conflicts.

The procedure for resetting WiFi is the following:
— At the function menu, press the "Reset WiFi" icon;
— Then a box opens where "OK" or "Delete" can be selected;
— Press "OK" to reset WiFi, press "Cancel" to cancel the operation and exit.

6.18 LOADING THE DEFAULT SETTINGS (RESET)

This function is used to load the default values (values pre-set in the factory) for all functions by resetting the changes made by the user.

NOTICE
ⓘ **This function can only be performed if the unit is switched off;**
ⓘ **This function interacts with the "Temp. timer", "Clock timer", "Preset mode", "Weekly timer" and "Weather depend" functions.**

6.19 CHILD-LOCK

At the function setting page, by touching "Child Lock", it can be set to "On" or "Off".
When set to "on", the panel returns to the home page and the icon 🔒 is shown in the upper part of the display.

In this case, the panel is locked and cannot respond to any commands.

To unlock the panel, press the icon 🏠 for 6 seconds; however, the "child-lock" function is still set to "on" and, if no other operations are performed within 30 seconds, the panel locks again.

It is only actually disabled when set to "off".

7   PARAMETER MENU

7.1   NAVIGATING THE MENU

This menu is used to set the machine adjustment values.
The following keys are used to navigate this menu:
1. Move back to the previous page;
2. Move on to the next page;
3. Go back to the higher level menu;
4. Go back to the main page (Home).
To access a function, click on the text of that function.

> **NOTICE**
>
> ℹ️ While navigating the menu pages, the current page of the selected menu will be displayed in the header (i.e. in the darker upper area).

7.2   SETTING THE TEMPERATURE SET-POINTS USED BY THE UNIT IN THE VARIOUS MODES (WOT-COOL~ ΔT-HOT WATER)

The windows of this menu are used to set the values used as a work set for the various modes. The way in which the values are modified and saved is the same for all of them: click on the label of the chosen parameter and set the required value using the "+" or "-" keys, inserting a value within the permitted range. After setting the value, press "OK" to confirm and return to the higher level.

> **NOTICE**
>
> ℹ️ The windows show the possible range for the selected parameter at the top left, whereas the value entered during the last modification is shown on the right;
>
> ℹ️ The following table lists all the parameters available, with their functions and operating ranges;
>
> ℹ️ If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) on page 38"), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure.

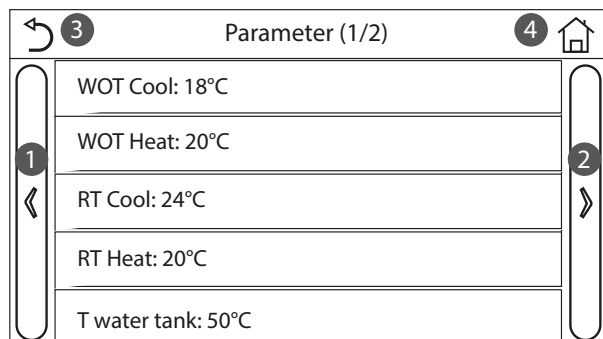| Label	Meaning	Range
WOT-Cool	Indicates the work set for cooling mode (used in control based on delivery water)	7~25℃
WOT-heat	Indicates the operating set-point for heating mode (used in control based on delivery water)	20~60℃
RT-Cool	Indicates the operating set-point for cooling mode (used in control based on ambient air)	18~30℃
RT-Heat	Indicates the operating set-point for heating mode (used in control based on ambient air)	18~30℃
T-tank ctrl.	Indicates the operating set-point for domestic hot water production (available only if the storage tank accessory is installed and set)	40~80℃
ΔT-room temp	Indicates the value of ΔT to be applied to the set-point when the control is based on ambient air	1~5℃
ΔT-Cool	Indicates the value of ΔT to be applied to the set-point for cooling when the control is based on delivery water	2~10℃

Label	Meaning	Range
ΔT-Heat	Indicates the value of ΔT to be applied to the set-point for heating when the control is based on delivery water	2~10°C
ΔT-hot water	Indicates the value of ΔT to be applied to domestic hot water production (available only if the storage tank accessory is installed and set)	2~8°C

8   VIEW MENU

8.1   NAVIGATING THE MENU

↩ ①	VIEW	② ⌂
Status		
Parameter		
Error		
Error log		
Version		

This menu is used possible to display a great deal of information related to machine operation. Each label brings together a set of information so that the user can check the status of the unit and any current errors or faults. The following keys are used to navigate this menu:

1. Go back to the higher level menu;
2. Go back to the main page (Home).

To access a function, click on the text of that function.

8.2   VIEWING THE STATUS OF THE UNIT COMPONENTS (STATUS)

These pages display the status of the various components in the system. After accessing the "Status" function, you can browse the various pages using the buttons on the left and right sides of the window. The following table shows the information available, and the possible statuses.

NOTICE
ℹ **All information contained in this menu is "read only".**

Label	Meaning	State
Compressor	Indicates the current status of the compressor	On / Off
Fan	Indicates the current status of the fan	On / Off
Unit status	Indicates the status of the unit	Cooling / Heating / ACS / Off
Circulator	Indicates the current status of the fan	On / Off
Water tank	Status of the electric heater in the DHW storage tank	On / Off
3-way valve 1	Not used	---
3-way valve 2	Indicates the status of the 3-way valve on the system	On / Off
Crankc. heater	Indicates the status of the compressor casing heater	On / Off
HP-heater 1	Indicates the status (for stage 1) of the optional electric heater, if installed (paragraph "9.11 Setting an additional heater (Optional E-heater) *on page 32*")	On / Off
HP-heater 2	Indicates the status (for stage 2) of the optional electric heater, if installed (paragraph "9.11 Setting an additional heater (Optional E-heater) *on page 32*")	On / Off
Chassis heater	Indicates the status of the anti-freeze heater on the unit base	On / Off
Plate heater	Indicates the status of the anti-freeze heater on the plate heat exchanger of the unit	On / Off

Label	Meaning	State
Defrost	Indicates the current status of the defrosting cycle	On
		Off
Oil return	Indicates the current status of the oil return cycle	On
		Off
Thermostat	Indicates the current thermostat settings (paragraph "9.9 Setting the use of an external thermostat (Thermostat) *on page 30*")	Off
		Cooling
		Heating
Other thermal	Indicates the status of the additional heat source (paragraph "9.10 Setting an additional heat source (Other thermal) *on page 31*")	On
		Off
2 way valve	Indicates the status of the 2-way valve on the system	On
		Off
HP-Antifree	Indicates the status of the anti-freeze protection	On
		Off
External contact	Indicates the status of the external contact (paragraph "9.17 Activating auxiliary device management (Gate-Ctrl) *on page 35*")	Card in
		Card out
4-way valve	Indicates the status of the 4-way valve on the unit	On
		Off
Anti-legionella	Indicates the current status of the anti-legionella cycle (paragraph "6.10 Enabling/disabling the anti-legionella cycle (Disinfection) *on page 17*")	Off
		Progess
		Done
		Error
Flow switch	Indicates the current status of the flow switch on the unit	On
		Off

8.3 VIEWING THE STATUS OF THE UNIT PARAMETERS (PARAMETER)

These pages display the current values for the unit's operating parameters. After accessing the "Parameters" function, you can browse the various pages using the buttons on the left and right sides of the window. The following table shows the information available.

> **NOTICE**
>
> ℹ️ All information contained in this menu is "read only".

Label	Meaning
T-outdoor	Indicates the external air temperature detected by the unit
T-suction	Indicates the temperature on the compressor inlet
T-discharge	Indicates the compressor delivery temperature
T-Defrost	Indicates the temperature for the defrosting cycle
T-water in PE	Indicates the temperature of the water entering the plate heat exchanger
T-water out PE	Indicates the temperature of the water leaving the plate heat exchanger
T-optional water sen.	Indicates the temperature of the water leaving the optional heater (paragraph "9.11 Setting an additional heater (Optional E-heater) *on page 32*")
T-tank ctrl.	Indicates the temperature measured in the compatible Aermec accessory tank
T-economizer in	Indicates the temperature on the economiser inlet
T-economizer out	Indicates the temperature on the economiser outlet
T-floor debug	Indicates the set temperature for radiant floor debug (paragraph "9.14 Setting the pre-heating procedure for radiant panels (Floor debug) *on page 34*")
Debug time	Indicates the set time for radiant floor debug (paragraph "9.14 Setting the pre-heating procedure for radiant panels (Floor debug) *on page 34*")
T-gas pipe	Indicates the temperature detected on the gas side of the cooling circuit
T-liquid pipe	Indicates the temperature detected on the liquid side of the cooling circuit
T-auto mode	Indicates the current set-point temperature, calculated using the climatic curve (paragraph "6.7 Setting the automatic setting compensation on the basis of external air (Weather depend) *on page 15*")
T-remote room	Indicates the room temperature detected by the probe (paragraph "9.12 Setting the installation of the remote room temperature probe (Ambient sensor) *on page 33*")
Dis. pressure	Indicates the compressor delivery pressure value

8.4 VIEWING THE ACTIVE ERRORS ON THE UNIT (ERROR)

These pages display the current errors and alarms active on the unit. After accessing the "Error" function, you can browse any pages using the buttons on the left and right sides of the window;

NOTICE
ⓘ **This function does not allow current errors to be reset; it only displays them;**
ⓘ **For more information about the error codes, refer to chapter "11 Alarm codes** *on page 41***";**
ⓘ **There may be several pages, depending on the number of errors (up to 5 errors per page).**

8.5 VIEWING THE ERROR LOG (ERROR LOG)

These pages display the alarm log for the unit. After accessing the "Error" function, you can browse any pages using the buttons on the left and right sides of the window;

NOTICE
ⓘ **There may be several pages, depending on the number of errors; the log lists the last 20 errors;**
ⓘ **For more information about the error codes, refer to chapter "11 Alarm codes** *on page 41***";**

8.6 VIEWING SOFTWARE INFORMATION (VERSION)

These pages display the version of the software installed on the unit.

9   COMMISSION MENU

Access to the "Start" menu is password-protected.
The access mode depends on the firmware version installed in the control panel.
Two access modes are available, but the user will only see the one provided by the version in use:
— Factory preset password access
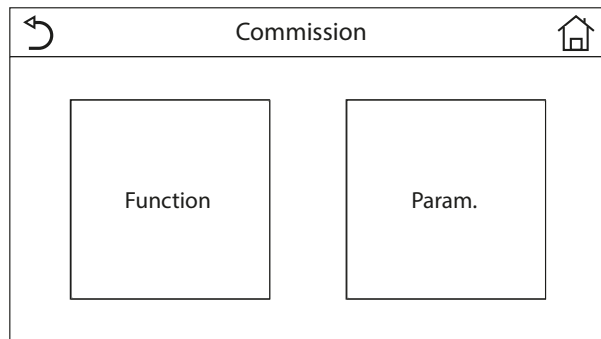— User-configurable password login

9.1   FACTORY PRESET PASSWORD ACCESS

CAUTION
⚠️ These functions and parameters must only be set and/or modified by authorised personnel with the necessary technical skills to install and maintain these units. Incorrect settings may lead to malfunctioning or damage to the unit and the system!

On the menu page, tapping 'Start-up' and entering the correct password (000048) in the window will take you to the commissioning page, where the left-hand side is for setting functions and the right-hand side is for setting parameters, as shown in the figure below:

PASSWORD: 000048

9.2   USER-CONFIGURABLE PASSWORD LOGIN

If there is no factory-set password, the user will be prompted to set a new one the first time the "Start-up" menu is accessed.
In this case, the following message will be displayed:

It is therefore necessary to proceed as indicated below:
1. Press "OK" to exit;
2. Press the "Start-up" icon for 5 seconds and then set the new password (6 digits) and enter the Start-up page.

NOTICE
ℹ️ It is advisable to make a note of the password set as it will be needed to access the Start-up page in the future.

This screen shows how to change the password:

NOTICE
ℹ️ If an incorrect password is entered 3 times consecutively, the panel will be locked for 1 minute; if an incorrect password is entered 5 times consecutively, it will be locked for 5 minutes; if 10 or more incorrect passwords

are entered consecutively, it will be locked for 30 minutes.

9.3 NAVIGATING THE MENU

This menu is used to make the settings needed for correct unit operation: the logics, the components installed on the system and the accessories envisaged for each installation will be set using the functions in this menu.

The information in the menu is sub-divided into two large macro groups:
— "Function" (containing the settings and any functions needed for unit operation);
— "Parameter" (containing the general operating parameters);
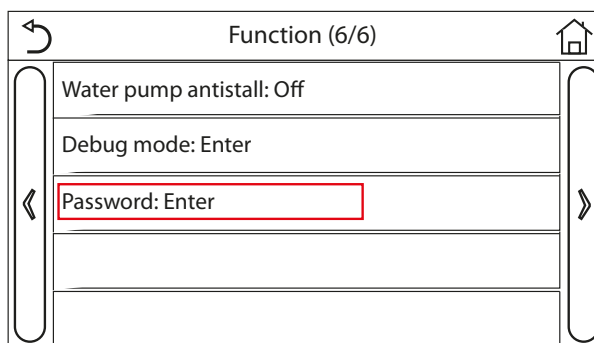
↩ ③	Function (1/4)	④ ⌂
① «	Ctrl. state: T water out	② »
	Cool 2 way valve: On	
	Heat 2 way valve: Off	
	Solar setting: Without	
	Water tank: With	

↩ ③	Parameter (1/1)	④ ⌂
① «	T HP max: 50°C	② »
	Cool run time: 5 min	
	Heat run time: 3 min	

To navigate the "Function" or "Parameter" sub-menu, use the following keys:
1. Move back to the previous page;
2. Move on to the next page;
3. Go back to the higher level menu;
4. Go back to the main page;
To access a function, click on the text of that function.

ⓘ NOTICE

If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) *on page 38*"**), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure.**

9.4 SETTING THE CONTROL LOGIC (CTRL.STATE)

Ctrl. state
⦿ T water out
○ T room

OK	Cancel

After accessing the "Ctrl.state" function, you can choose whether to base the unit control logic on the processed water temperature or on the ambient air temperature (if the air probe accessory is installed and correctly set). Select the required logic, then press "OK" to confirm.

ⓘ NOTICE

ⓘ If the ambient air probe accessory is not installed (and correctly set), you can only choose "T-water out";

ⓘ If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) *on page 38*"**), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure.**

9.5 SETTING THE STATUS OF THE 2-WAY VALVE IN COOLING MODE (COOL 2-WAY VALVE)

Cool 2 way valve
⦿ Off
○ On

OK	Cancel

After accessing the "Cool 2-Way valve" function, you can set the status of the 2-way valve in cooling mode (for more information about the assembly and use of the 2-way valve, refer to the installation manual). Select the required logic, then press "OK" to confirm.

NOTICE

ℹ️ If you select the "Off" status, the valve will be CLOSED in cooling mode; it will be OPEN if you select "On";

ℹ️ If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) *on page 38*"), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure.

9.6 SETTING THE STATUS OF THE 2-WAY VALVE IN HEATING MODE (HEAT 2-WAY VALVE)

Heat 2 way valve

◉ Off

◯ On

| OK | Cancel |

After accessing the "Heat 2-Way valve" function, you can set the status of the 2-way valve in heating mode (for more information about the assembly and use of the 2-way valve, refer to the installation manual). Select the required logic, then press "OK" to confirm.

NOTICE

ℹ️ If you select the "Off" status, the valve will be CLOSED in heating mode; it will be OPEN if you select "On";

ℹ️ If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) *on page 38*"), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure.

9.7 SETTING SOLAR SYSTEM INTEGRATION (SOLAR SETTING)

Function currently NOT AVAILABLE.

NOTICE

ℹ️ This function is not currently available, so its setting must necessarily be "Without".

9.8 SET THE INSTALLATION OF A COMPATIBLE AERMEC ACCESSORY TANK (DHW TANK)

Water tank

◉ Without

◯ With

| OK | Cancel |

After accessing the "Water tank" function, you can specify whether the DHW storage tank accessory is installed in the system (for more information about the assembly and use of the DHW storage tank accessory, refer to the installation manual). Make your selection, then press "OK" to confirm.

NOTICE

ℹ️ If the compatible Aermec accessory tank is not installed, operating modes involving DHW production will NOT be available.

ℹ️ If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) *on page 38*"), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure.

9.9 SETTING THE USE OF AN EXTERNAL THERMOSTAT (THERMOSTAT)

Thermostat

◉ Without

◯ Air

◯ Air + hot water

| OK | Cancel |

After accessing the "Thermostat" function, you can specify which type of management to apply to a hypothetical external thermostat (for more information about the assembly and use of an external thermostat, refer to the installation manual). Make your selection, then press "OK" to confirm.

NOTICE

ⓘ The available options depend on the settings associated with the production of domestic hot water (presence of a compatible Aermec accessory tank, etc.);

ⓘ To change the thermostat settings, the unit must be switched Off;

ⓘ If the "Floor debug" or "Emergen. mode" function is active, the external thermostat cannot be used;

ⓘ If the use of an external thermostat is activated, the commands for changing the operating mode or for switching the unit on/off from the control panel will not be available;

ⓘ If the external thermostat is set for "Cool+hot water", and the unit is "Off" because of the thermostat, any requests from the DHW side will be met automatically by the unit, even though the display does not show the "On" status (but you can still see the values in the parameters menu while the unit is working);

ⓘ To pass from one setting value to the other, first of all select "Without";

ⓘ If a unit on which the thermostat has been installed and set is disabled, the unit will automatically be switched Off;

ⓘ If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) *on page 38*"), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure.
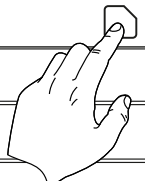
9.10 SETTING AN ADDITIONAL HEAT SOURCE (OTHER THERMAL)

After accessing the "Additional heat source" function, you can activate or deactivate the substitute heat source and set the outdoor temperature threshold below which it will be activated in place of the heat pump; you can also define the logic for managing the substitution. The available logic items are:

Logic 1

With this logic, the 2-way valve is managed on the basis of the control panel settings; the operating modes will therefore be managed when the temperature measured by the outside air probe is lower than the "Additional heat source temp." parameter:
— **Heating**: the unit (and its circulator) will not be active, the 3-way valve will be blocked on the system side, and the additional heat source will be activated; once the set value has been reached, the additional heat source will be deactivated and the unit will activate its circulator.
— **DHW**: the unit (and its circulator) will not be active, the 3-way valve will be blocked on the DHW side, and the additional heat source will be activated.
— **Heating + DHW**: the unit (and its circulator) will not be active, the 3-way valve will be blocked on the system side, and the additional heat source will be activated; once the set value has been reached, the additional heat source will be deactivated and the unit will activate its circulator; the DHW side will be managed using only the electric heaters of the compatible Aermec accessory tank.

Logic 2 (not available for BHP units)

With this logic, the 2-way valve is managed on the basis of the control panel settings; the operating modes will therefore be managed when the temperature measured by the outside air probe is lower than the "Additional heat source temp." parameter:
— **Heating**: the unit (and its circulator) will not be active, the 3-way valve will be blocked on the system side, and the additional heat source will be activated; once the set value has been reached, the additional heat source will be deactivated and the unit will activate its circulator.
— **DHW**: the unit (and its circulator) will not be active, the 3-way valve will be blocked on the DHW side, and the additional heat source will be activated.
— **Heating + DHW**:
1. If the priority is "Heating" (paragraph "6.5 Set the priority between heating and domestic hot water production (Heat+hot water) *on page 14*"), the unit (and its circulator) will not be active, the 3-way valve will be blocked on the system side, and the additional heat source will be activated; once the set value has been reached, the additional heat source will be deactivated and the unit will activate its circulator; the DHW side will be managed using only the electric heaters of the compatible Aermec accessory tank;
2. If the priority is "DHW" (paragraph "6.5 Set the priority between heating and domestic hot water production

(Heat+hot water) *on page 14*") , the unit (and its circulator) will not be active, the 3-way valve will be blocked on the DHW side, and the additional heat source will be activated; once the set value has been reached on the DHW side, the 3-way valve will be moved to the system side and the additional heat source will work for heating;

Logic 3

This logic disables the heat pump and activates a 230V signal to the "Other thermal" terminals (refer to the installation manual for more information); this signal activates the additional heat source when the temperature measured by the outside air probe is lower than the "Additional heat source temp." parameter (which will work in stand alone mode compared with the unit).
Lastly, press the top right button to save the data entered.

NOTICE
ⓘ **When this function is activated, it permits the activation of the replacement heat source (via a 230V ~ 50Hz signal to the "Other thermal" terminals) if the outside temperature falls below the value specified in the "Additional heat source temp." parameter or if "Emergency mode" is activated;**
ⓘ **If you select "Logic 1" or "Logic 2", the additional heat source must be set so as to produce hot water with a set-point equal to that selected for the heat pump. This setting must be made manually by the user, as the heat pump gives consent only (without the possibility to alter the hot water production set-point on the additional heat source);**
ⓘ **If you select "Logic 2", the system must be designed to supply the system terminal side and the DHW side with water at the same temperature (so the system-side terminals must necessarily be fitted with mixer valves to ensure the hot inlet water is correctly managed);**
ⓘ **The supplementary water probe must be installed downstream of the 3-way valve (for more information, refer to the installation manual);**
ⓘ **The maximum value for the heating set-point is 60°C, whereas the set-point in DHW mode must be between "DHW tank T" (paragraph "7.2 Setting the temperature set-points used by the unit in the various modes (WOT-Cool~ ΔT-hot water) *on page 24*") + 5°C and 60°C;**

ⓘ	**If this function is used, no additional electric heaters can be enabled (optional elec. heater);**
ⓘ	**If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) *on page 38*"), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure;**
ⓘ	**In the case of BHP, only Logic 1 and Logic 3 can be used. The additional water probe supplied must be replaced and positioned as shown in the Installation Manual.**

9.11 SETTING AN ADDITIONAL HEATER (OPTIONAL E-HEATER)

⏎	Optional E Heater	🗋
Optional E Heater: 1		
T Heater: -15°C		
Logic 1		

For the HMI range:
Once you have entered the "Optional elec. heater" function, you can activate or deactivate any additional electric heater. This heater may be single-stage or dual-stage (in the case of a dual-stage model, you can decide whether or not to use both stages by specifying the number of heaters in the first parameter). You can also set the outdoor temperature threshold below which it will be activated in place of the heat pump;

MANDATORY
❗ **It is compulsory to select "Logic 1".**

Lastly, press the top right button to save the data entered.

NOTICE
ⓘ **When this function is activated, it permits the activation of the supplementary heaters (via a 230V ~ 50Hz signal to the "KM1" and "KM2" terminals; in the case of a single heater, use the "KM1" terminals only) if the outside temperature falls below the value specified in the "Elec. heater T." parameter or if "Emergency mode" is activated;**

ⓘ **The supplementary water probe must be installed downstream of the electric heater (for more information, refer to the installation manual);**

ⓘ **If this function is used, no additional heat source can be enabled (Additional heat source);**

ⓘ **The electric heater must be installed downstream of the 3-way valve (terminal side of the system);**

ⓘ **The DHW request will be met by the electric heater in the compatible Aermec accessory tank, whereas the system request will be met by the electric heaters;**

ⓘ **The electric heaters for the system, and the electric heater in the DHW tank available as an Aermec accessory, will never be activated simultaneously;**

ⓘ **If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory)** *on page 38***"), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure.**

For the BHP range:
Once you have entered the "Optional elec. heater" function, you can activate or deactivate the electric heaters installed on the indoor unit, as per the following configurations:
— BHP060W and BHP060F = 1.5kW + 1.5kW;
— BHP100W and BHP100F = 3.0kW + 3.0kW;
The "Elec. heater T." parameter is used to set the outside temperature threshold below which the heaters should be activated in place of the heat pump.

MANDATORY
⚠ **It is compulsory to select "Logic 1".**

Lastly, press the top right button to save the data entered.

NOTICE
ⓘ **Once this function has been activated, it will give consent for the enabling of the electric heaters if the outside temperature falls below the value specified in the "Elec. heater T." parameter or if "Emergency mode" is activated;**
ⓘ **If this function is used, no additional heat source can be enabled (Additional heat source);**

ⓘ **The DHW request will be met by the electric heater in the compatible Aermec accessory tank, whereas the system request will be met by the electric heaters;**

ⓘ **The electric heaters for the system, and the electric heater in the DHW tank available as an Aermec accessory, will never be activated simultaneously;**

ⓘ **If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory)** *on page 38***"), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure.**

9.12 SETTING THE INSTALLATION OF THE REMOTE ROOM TEMPERATURE PROBE (AMBIENT SENSOR)

Remote sensor
◉ Without
◯ With
OK   Cancel

After accessing the "Ambient sensor" function, you can specify whether or not to enable the remote room temperature probe (for more information about this component, refer to the installation manual). Select the required logic, then press "OK" to confirm.

NOTICE
ⓘ **The "T-remote room" option in the "Ctrl. state" function will only be available if the room temperature sensor is enabled;**
ⓘ **If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory)** *on page 38***"), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure.**

9.16 ACTIVATING MODE FORCING (FORCE MODE)

```
┌─────────────────────────────────────┐
│            Force mode                │
│                                      │
│         ◉ Off                        │
│                                      │
│         ○ Force cool                 │
│                                      │
│         ○ Force heat                 │
│                                      │
│  ┌──────────────┐  ┌──────────────┐  │
│  │     OK       │  │    Cancel    │  │
│  └──────────────┘  └──────────────┘  │
└─────────────────────────────────────┘
```

After accessing the "Force mode" function, you can activate or deactivate the command to execute the specific heating or cooling function. Make your selection, then press "OK" to confirm.

NOTICE

ⓘ **This function can only be activated if the unit is switched Off after a re-start;**

ⓘ **The unit status (On/Off) cannot be modified while this function is in progress;**

ⓘ **If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory)** _on page 38_**"), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure.**

9.17 ACTIVATING AUXILIARY DEVICE MANAGEMENT (GATE-CTRL)

```
┌─────────────────────────────────────┐
│            Gate Ctrl.                │
│                                      │
│         ◉ Off                        │
│                                      │
│                                      │
│         ○ On                         │
│                                      │
│                                      │
│  ┌──────────────┐  ┌──────────────┐  │
│  │     OK       │  │    Cancel    │  │
│  └──────────────┘  └──────────────┘  │
└─────────────────────────────────────┘
```

After accessing the "Gate-Ctrl" function, you can activate or deactivate the management of the switch-on/switch-off command via the external contact (for more information about this contact, refer to the installation manual). Make your selection, then press "OK" to confirm.

NOTICE

ⓘ **This function must only be activated if an auxiliary device is installed; otherwise the unit will be blocked;**

ⓘ **When this function is active, the unit will only receive operating consent when the circuit on the dedicated terminals (for more information, refer to the installation manual) is CLOSED. The display will show a message if you attempt to start an operation while the circuit is OPEN;**

ⓘ **If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory)** _on page 38_**"), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure.**
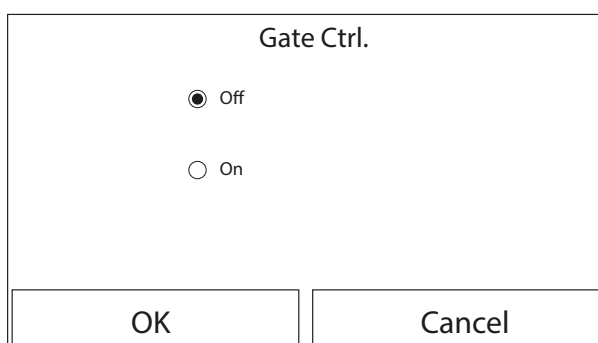
9.18 SETTING OF MAX. ABSORPTION (A/P LIMIT)

Function currently NOT AVAILABLE.

MANDATORY

❗ **This function is not currently available, so its setting must necessarily be "Off".**

9.19 SETTING THE SERIAL ADDRESS OF THE UNIT (ADDRESS)

```
┌─────────────────────────────────────┐
│            Address                   │
│─────────────────────────────────────│
│ Range: 1~153            Default: 1   │
│                                      │
│    ⊖        ( 1 )        ⊕           │
│                                      │
│─────────────────────────────────────│
│  ┌──────────────┐  ┌──────────────┐  │
│  │     OK       │  │    Cancel    │  │
│  └──────────────┘  └──────────────┘  │
└─────────────────────────────────────┘
```

After accessing the "Address" function, you can set the address assigned to the unit for possible control via Modbus. To set the required value, use the "+" and "-" keys, entering a value within the permitted range. After setting the value, press "OK" to confirm and return to the higher level.

NOTICE

ⓘ **The unit can be used to create a BMS supervision system with the Modbus protocol (for**

ⓘ more information, refer to the specific documentation available on the website);

ⓘ If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) *on page 38*"), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure;
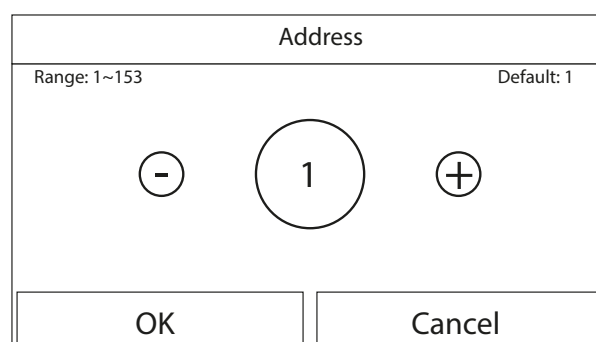
ⓘ At the first start-up, the address will be "1";

ⓘ The address can be selected between 1~125 or 127~253.

9.20 SETTING THE REFRIGERANT RECOVERY FUNCTION (REFRI. RECOVERY)

```
Refri. recovery

    ◉ Off

    ○ On


    OK              Cancel
```

After accessing the "Refri. recovery" function, you can activate or deactivate the recovery and storage of refrigerant inside the unit.

NOTICE

ⓘ This function is only useful only if technical maintenance intervention on the unit is required; consequently, it must only be activated by personnel authorised to provide technical assistance and/or install the units.

ⓘ This function should only be used by technical assistance personnel. In addition, remember that this function is not stored in the memory.

9.21 SET THE MANAGEMENT LOGIC FOR THE COMPATIBLE AERMEC ACCESSORY TANK HEATER (ELEC. TANK HEATER)

```
Tank heater

    ◉ Logic 1

    ○ Logic 2


    OK              Cancel
```

After accessing the "Elec. tank heater" function, you can select the logic for managing the electric heater of the compatible Aermec accessory tank. The available logic items are:
— **Logic 1**: the unit compressor and the electric heater in the tank cannot work simultaneously;
— **Logic 2**: the unit compressor and the electric heater in the tank can work simultaneously;

NOTICE

ⓘ If the compatible Aermec accessory tank is not installed, this function will not be available;

ⓘ To change the thermostat settings, the unit must be switched Off;

ⓘ To ensure the maximum energy savings, you are advised to use Logic 1;

ⓘ If the relative function is activated (paragraph "10.3 Activating/deactivating the memory (On/off memory) *on page 38*"), the value of these parameters will be stored in the memory and automatically reset after any possible voltage failure;

ⓘ The default value is Tank heater: Logic 1;

9.22 SET THE MEMORY CONTACT FUNCTION (MEMORY CONTACT)

```
┌─────────────────────────────────────┐
│          Gate-Ctrl Memory            │
│                                       │
│        ⦿  Off                         │
│                                       │
│        ○  On                          │
│                                       │
│  ┌──────────────┬──────────────┐     │
│  │     OK       │    Cancel     │     │
│  └──────────────┴──────────────┘     │
└─────────────────────────────────────┘
```

After accessing the "Memory contact" function, you can activate or deactivate the storage of the setting for the "External contact" function (refer to paragraph "9.17 Activating auxiliary device management (Gate-Ctrl) *on page 35*" for more information about this function).

> **NOTICE**
>
> ℹ **This function must be used only by technical assistance.**

9.23 SETTING THE MAXIMUM TEMPERATURE FOR THE DHW STORAGE TANK VIA HEAT PUMP ONLY (T HP MAX)

```
┌─────────────────────────────────────┐
│               T HP max               │
├─────────────────────────────────────┤
│ Range: 40~55°C          Default: 50°C │
│                                       │
│     ⊖       ( 50° C )       ⊕         │
│                                       │
│  ┌──────────────┬──────────────┐     │
│  │     OK       │    Cancel     │     │
│  └──────────────┴──────────────┘     │
└─────────────────────────────────────┘
```

After accessing the "Max HP T" function, you can indicate the maximum temperature for heating the water in the compatible Aermec accessory tank via the heat pump only. To set the required value, use the "+" and "-" keys, entering a value within the permitted range. once the value has been set, press the "OK" button to confirm it and return to the upper level.

> **NOTICE**
>
> ℹ **This function must be used only by technical assistance.**

9.24 SETTING THE COOLING OPERATING TIME (COOL RUN TIME)

This parameter is used to stabilise the temperature of the terminals once the operating set-point has been reached. You are advised to set a higher value if the system terminals have considerable thermal inertia (e.g. radiant floors).
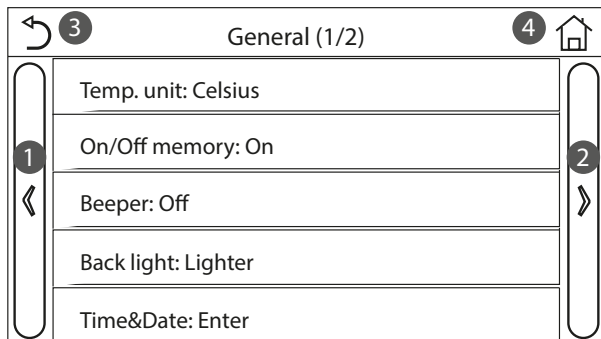
> **NOTICE**
>
> ℹ **This function must only be used by technical assistance and/or installation personnel.**

9.25 SETTING THE HEATING OPERATING TIME (HEAT RUN TIME)

Refer to paragraph "9.23 Setting the maximum temperature for the DHW storage tank via heat pump only (T HP max) *on page 37*".

10 MAIN MENU

10.1 NAVIGATING THE MENU

This menu is used to set the machine adjustment values. The following keys are used to navigate this menu:

1. Move back to the previous page;
2. Move on to the next page;
3. Go back to the higher level menu;
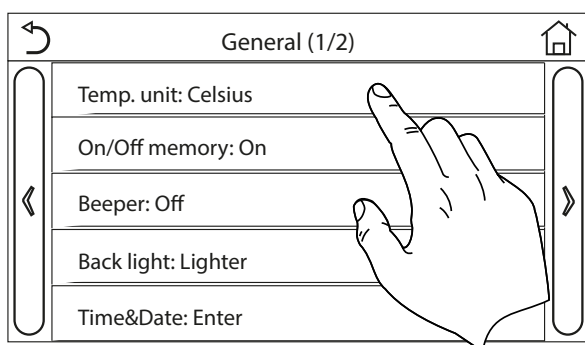4. Go back to the main page (Home).

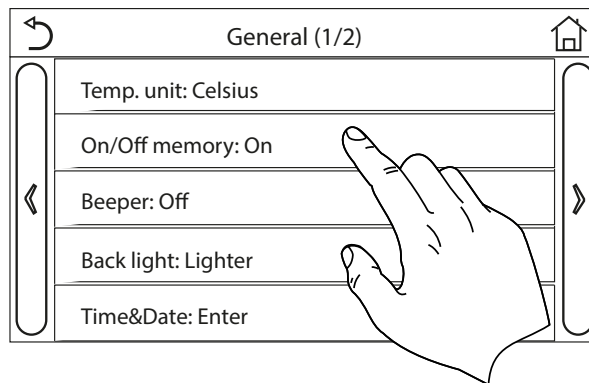To access a function, click on the text of that function.

NOTICE
ℹ️ **While navigating the menu pages, the current page of the selected menu will be displayed in the header (i.e. in the darker upper area).**

10.2 SETTING THE UNIT OF MEASUREMENT (TEMP. UNIT)

Click on the "Temp. unit" label to change the unit of measurement used for temperature (Celsius or Fahrenheit).

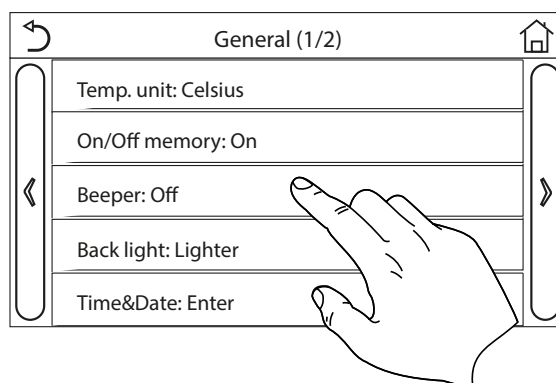## 10.3 ACTIVATING/DEACTIVATING THE MEMORY (ON/OFF MEMORY)

Click on the "On/off memory" label to activate or deactivate the saving of parameter/function settings.

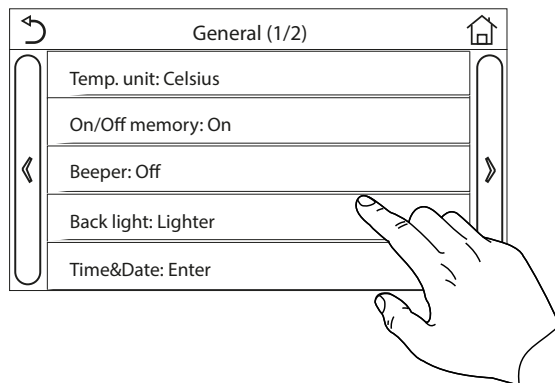| NOTICE |
| --- |
| ℹ️ **If this option is activated, after a power failure the unit will automatically resume the values set and saved in the memory.** |

10.4 ACTIVATING/DEACTIVATING THE SOUND (BEEPER)

Click on the "Beeper" label to activate or deactivate the acoustic signal that identifies each touch on the screen.
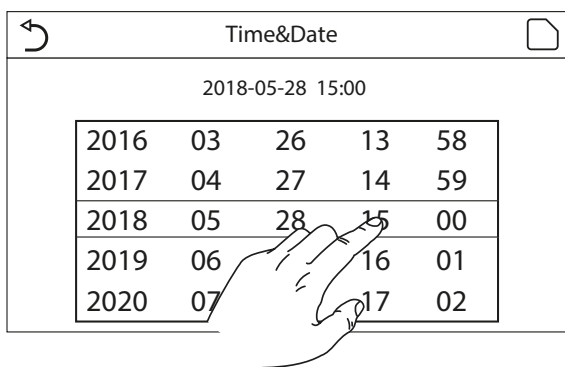
10.5 SETTING THE DISPLAY LIGHTING (BACK LIGHT)

Click on the "Back light" label to define whether to use the "Lighted" logic (display always active) or "Energy save" logic (display switched off after 5 minutes of inactivity; press on the display to automatically switch it back on).

10.6 SETTING THE SYSTEM DATE AND TIME (TIME&DATE)

After accessing the "Time&Date" function, you can set the current date and time to be used on the system. Lastly, press the top right button to save the data entered.

10.7 SELECTING THE SYSTEM LANGUAGE (LANGUAGE)

After accessing the "Language" function, you can choose the system language by using your finger to scroll through the options. Make your selection, then press the button indicated to confirm.

10.8 ACTIVATING THE WIFI (WIFI)

This function activates the WiFi signal that allows you to use the app to control the unit.

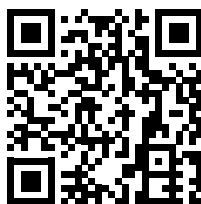| NOTICE |
|---|
| **ⓘ** The EWPE SMART app is compatible with ANDROID and iOS systems; |
| **ⓘ** The unit can only be managed via a WiFi or hotspot 4G signal; |
| **ⓘ** The system is compatible with routers that use WEP cryptography. |

EWPE SMART

10.9 MODBUS RS485 CONNECTION

If you want to manage the unit via a BMS connected via ModBus RS485, refer to the information available in the dedicated manual, available at the following address:

http://www.aermec.com/qrcode.asp?q=14459

11   ALARM CODES

If error or alarm conditions arise during normal operation of the unit, faults will be indicated on the display by icons (⊙); it will also be possible to obtain more information about active errors by checking the specific page in the "View" "Error" page menu (as specified in paragraph "8.3 Viewing the status of the unit parameters (Parameter) *on page 26*").
Possible errors (with relative codes) are as follows:

Label Error	Description	Code
Ambient sensor	indicates a malfunction of the external air sensor	F4
Ambient sensor	Indicates a malfunction of defrosting temperature sensor on the outdoor unit	d6
Discharge sensor	Indicates a malfunction of the temperature sensor on compressor delivery	F7
Suction sensor	Indicates a malfunction of the temperature sensor on compressor intake	F5
Econ. in sens.	Indicates a malfunction of the temperature sensor at the economizer input	F2
Econ. out sens.	Indicates a malfunction of the temperature sensor at the economizer output	F6
Error fan	Indicates a malfunction affecting the fan on the outdoor unit	EF
High pressure	Indicates abnormal pressure on the high pressure side of the cooling circuit	E1
Low pressure	Indicates abnormal pressure on the low pressure side of the cooling circuit	E3
Hi-discharge	Indicates an abnormal temperature on the compressor discharge	E4
Capacity DIP	Indicates a DIP SWITCH positioning error on the outdoor unit board	c5
ODU-IDU Com.	Indicates a serial communication error between the AP1 and AP2 cards on the outdoor unit	e6
Drive main com	Indicates a serial communication error between the AP2 and AP4 cards on the outdoor unit	P6
IDU Com.	Indicates a serial communication error between the AP1 cards and flush panel (display)	E6
HI-pre. sens.	Indicates a fault on the high pressure transducer	Fc
Temp HELW	Indicates a fault on the temperature sensor at heat exchanger plate outlet (water side)	F9
Temp AHLW	Indicates a fault on the temperature sensor located downstream of the 3-way valve if the installation includes an auxiliary electrical resistance or a supplementary heat source	dH
Temp HEEW	Indicates a fault on the temperature sensor at heat exchanger plate inlet (water side)	--
Tank sensor	Indicates a fault on the temperature sensor located on the accessory DHW storage tank	FE
T-remote room	Indicates a malfunction of the ambient air sensor supplied with the unit	F3
HP-Water Switch	Indicates an alarm generated by the flow switch at the input to the outdoor unit (water side)	Ec
Auxi. heater 1	Indicates a malfunction affecting the auxiliary resistance 1 (KM1)	EH
Auxi. heater 2	Indicates a malfunction affecting the auxiliary resistance 2 (KM2)	EH
Auxi. WTH	Indicates a malfunction affecting the resistance placed in the accessory DHW storage tank (KM3)	eh
DC under vol.	Indicates an error caused by low voltage on the DC bus or an error caused by a voltage drop	PL
DC over vol.	Indicates an error caused by high voltage on the DC bus	PH
AC curr. pro.	Indicates an abnormal value for AC current (AC protection)	PA
IPM defective	Indicates an operating fault on the IPM module (inverter power module)	H5
PFC defective	Indicates an operating fault on the PFC module (power correction module)	Hc
Start failure	Indicates a fault in the unit's start-up phase	Lc
Phase loss	Indicates a problem associated with the loss or unbalance of voltage phases	Ld
Com Driver	Indicates a communication error with the unit's drivers	P6
Driver reset	Indicates a reset made on the unit's drivers	P0
Com. over cur.	Indicates that an overcurrent on the compressor has been detected	P5
Overspeed	Indicates that an incorrect compressor speed has been detected	LF
Current sen.	Indicates an abnormal value for the current sensor	Pc
Desynchronize	Indicates that the compressor is out of sync	H7
Comp. stalling	Indicates that the compressor is currently stalled	LE
Overtemp. mod.	Indicates that an overtemperature has been detected on a component (heatsink, IPM or PFC)	P8
T mod. sensor	Indicates that an error has been detected on the temperature sensor for a component (heatsink, IPM or PFC)	P7

Label Error	Description	Code
Charge circuit	Indicates an error on the charging circuit	Pu
AC voltage	Indicates a power supply error	PP
Temp driver	Indicates an error affecting the external air sensor	PF
AC contactor	Indicates a protection status on the power supply	P9
Temp. drift	Indicates a protection status for drift temperature	PE
Sensor con.	Indicates a protection status for the sensor monitoring the phases	Pd
ODU Com.	Indicates a serial communication error between the display and the outdoor unit	E6
Temp RGL	Indicates an error affecting the temperature sensor on the cooling circuit gas line	F0
Temp RLL	Indicates an error affecting the temperature sensor on the cooling circuit fluid line	F1

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